

## ***Introduction***

In 1993, the Virginia General Assembly adopted legislation that established a policy to promote source reduction (or “pollution prevention”) over other environmental management techniques such as control, treatment and disposal. The United States Congress adopted a similar policy preference with the passage of the Pollution Prevention Act of 1990. The Virginia law requires the Department of Environmental Quality (DEQ) to establish a pollution prevention technical assistance program and to report annually to the Governor and the General Assembly on its activities. This report summarizes DEQ’s pollution prevention efforts during the year 2000.



The Virginia Pollution Prevention Advisory Committee, consisting of representatives of industry, government and citizen organizations, provides advice and feedback to DEQ on its pollution prevention programs. The committee met twice in 2000, in May and October. A list of the current membership is included on page 27.

Since 1999, the “Virginia Innovations in Pollution Prevention” or VIP2 initiative has guided DEQ’s activities related to pollution prevention. VIP2 consists of the following seven components designed to significantly expand the level of pollution prevention activity within the public and private sectors:

1. ***Virginia Environmental Excellence Program***, which provides recognition and incentives to encourage the implementation of environmental management systems and pollution prevention;
2. ***Facilitation of mentoring activity***, including business-to-business, government-to-government, business-to-government, etc. throughout the Commonwealth;
3. ***Promotion of innovative environmental technology***;
4. ***Financial incentives for environmental improvements***, including pollution prevention;
5. ***Integration of pollution prevention concepts within DEQ’s core regulatory programs***;
6. ***Expanded technical assistance services*** for pollution prevention and environmental management systems; and,
7. ***Environmental education*** activities.

Each component of VIP2 is being implemented by one or more of the programs within DEQ’s Division of Pollution Prevention and Compliance Assistance. Each is explained in further detail in the report.

# 1. Virginia Environmental Excellence Program

## Background

The Virginia Environmental Excellence Program (VEEP) was developed during 1999 and early 2000 by the Office of Pollution Prevention (OPP) to promote the use of environmental management

systems and pollution prevention as a means of achieving greater environmental quality and improved organizational performance. A workgroup consisting of representatives of industry, government, and citizen groups assisted DEQ in the program development phase. The VEEP is a voluntary program that offers recognition and incentives to encourage the adoption of environmental management systems and pollution prevention by businesses, manufacturers, government agencies, and other organizations.



There are two types of participation in the program, Environmental Enterprise and Exemplary Environmental Enterprise. The Environmental Enterprise, or E2 level of participation, is for those organizations that are interested in beginning or are in the early stages of implementing an environmental management system. The Exemplary Environmental Enterprise, or E3 level of participation, is for those organizations with fully implemented environmental management systems and pollution prevention programs. A record of sustained compliance with environmental regulations is a requirement of both levels of participation. The table below summarizes the requirements for participation as well as the benefits for both levels of the program.

Environmental Enterprise (E2)	Exemplary Environmental Enterprise (E3)
<b><u>Participation Requires:</u></b> <ul style="list-style-type: none"> <li>◆ Policy statement outlining the facility's commitment to improving environmental quality</li> <li>◆ An evaluation of facility's environmental impacts</li> <li>◆ Objectives and targets for addressing significant environmental impacts</li> <li>◆ Description of the facility's pollution prevention program</li> <li>◆ Sustained record of compliance with environmental regulations</li> </ul>	<b><u>Participation Requires:</u></b> <p>Documentation that the components of the Virginia Environmental Management System are in place at the facility, including: environmental policy statement; actual or potential environmental impacts; environmental legal requirements; reporting and record keeping; training; emergency response procedures; internal and external communication; documentation of pollution prevention program, including objectives, targets, procedures and milestones; sustained record of compliance with environmental regulations.</p>
<b><u>Benefits of Participation:</u></b> <ul style="list-style-type: none"> <li>◆ Positive public recognition</li> <li>◆ Access to environmental mentors</li> <li>◆ Non-regulatory technical assistance</li> <li>◆ Information on financial incentives for environmental improvements</li> <li>◆ Single point-of-contact within DEQ</li> </ul>	<b><u>Benefits of Participation:</u></b> <ul style="list-style-type: none"> <li>◆ All E2 benefits</li> <li>◆ Consideration of flexibility with environmental regulatory requirements by DEQ on a case-by-case basis</li> </ul>

The VEEP was announced by Secretary of Natural Resources John Paul Woodley, Jr., in April at the Environment Virginia 2000 conference held at the Virginia Military Institute. At the time of the announcement, DEQ indicated that it would begin accepting applications for program participation on July 1. On July 21, DEQ Director Dennis H. Treacy and U.S. Environmental Protection



DEQ Director Treacy and EPA Region III Campbell sign VEEP MOA

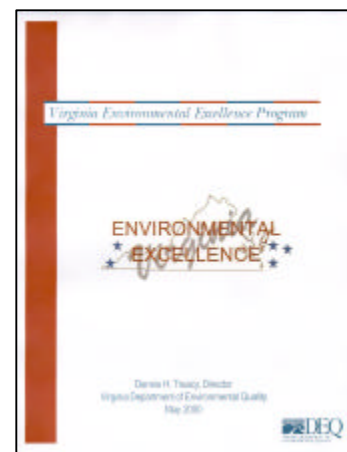
Agency Region III Administrator Brad Campbell signed a Memorandum of Agreement (MOA), which outlines the agencies' respective roles and responsibilities in fulfilling the objectives of the VEEP. The MOA is based on the principles established through the Environmental Council of States (ECOS)/U.S. Environmental Protection Agency (EPA) May 5, 1998 "Joint EPA/State Agreement to Pursue Regulatory Innovation."

## Outreach

The Office of Pollution Prevention (OPP) has developed a marketing strategy that employs a variety of approaches: hard copy resources; utilization of partner organizations; workshops and presentations; mass media; and, mailing approaches. OPP has formed a VEEP Marketing Committee to assist in guiding the direction of these efforts.

A program brochure was developed that includes a description of the program as well as the application. The brochure has been distributed upon request to over 500 interested businesses and other organizations since mid-2000. OPP staff conducted VEEP orientation

sessions in each of DEQ's six regional offices and for the various programs of the Central Office. In total, OPP performed fourteen orientation sessions for approximately 400 DEQ staff; overall, the program was very well received.



VEEP Brochure

VEEP Postcard

In an effort to increase referrals to OPP by other DEQ staff, OPP developed an informational/referral postcard for the VEEP program. The card provides a brief summary of the program. Those interested in receiving additional information can return the card directly to OPP for follow up. DEQ staff has been provided with supplies of these cards and has been asked to include them in all appropriate communications with the regulated community.

On July 25, DEQ co-sponsored a workshop with the Virginia Manufacturers Association as a kick-off for the program. It detailed the VEEP as well as EPA's National Environmental Performance Track (see page 5 for more information). More than 125 participants, many of who verbally committed their intent to join the program, attended the event. OPP plans to sponsor similar events on a regional basis around the Commonwealth in early 2001.

OPP has developed a web site for the program ([www.deq.state.va.us/veep](http://www.deq.state.va.us/veep)). The site provides information on program requirements and the application process, as well as links to other sources of information on pollution prevention and environmental management systems. A list of businesses and other organizations that have either applied or have been accepted into the program is also included on the site.



VEEP Web Site

## **Membership**

On November 3, the Lockheed Martin Corporation of Manassas was honored as the first participant to achieve the program's E3 status. The ceremony included remarks by Secretary of Natural Resources John Paul Woodley, Jr., DEQ Director Dennis H. Treacy, and Francis M. DeBritz, President of the Manassas facility. Also in attendance were representatives of DEQ's Northern Regional and Central Offices, state and local elected officials, and company employees. Similar tailored media events are planned for each participant who achieves E3 status.



Secretary Woodley presenting the VEEP certificate to Francis DeBritz of Lockheed Martin

In October, DEQ accepted all forty-one of the Safeway grocery stores located in Northern Virginia into the program as E2 participants as a result of the company's interest in energy conservation and waste reduction. Safeway plans to hang signs in all of the stores indicating their participation in the program.

## **Coordination with other Programs**

### **♦ Agriculture & VEEP**

In the fall of 2000, DEQ, in conjunction with other state programs oriented towards agriculture, began working to develop a voluntary compliance assistance and environmental enhancement program for Virginia farms. As part of this effort, OPP is working to identify and define policy statements, environmental impacts, and pollution prevention goals to make the VEEP appealing to farms. DEQ expects to receive Environmental Excellence (E2) applications from two dairy farms by the end of the year.

### **♦ Virginia Clean Marinas Program & VEEP**

Over the past year, OPP staff have been working with other state agencies, including the Virginia Coastal Resources Management Program, the Department of Conservation and Recreation, Virginia Marine Resources Commission, Department of Game and Inland Fisheries, Department of Health, and the Virginia Institute of Marine Science, to develop and implement a "Clean Marinas Program".



The goal of the program is to reduce negative environmental impacts related to marina operations. This will be achieved, in part, through the implementation of the practices outlined in the *Clean Marinas Best Management Practices (BMPs) Manual*, which is expected to be completed by the end of 2000. The manual includes advice and direction on pollution prevention and habitat enhancement initiatives, boater education and staff training programs, recycling initiatives, and proper management of materials and wastes.

For a marina to be recognized as "clean", the facility will have to meet a minimum set of criteria (in checklist format) and commit to continuous improvement. OPP is working with its partners to integrate the VEEP criteria into both the BMP manual and the

checklist, which would allow a certified clean marina to also be eligible for Environmental Excellence (E2) status in the VEEP. Benefits of participation to marinas will include positive recognition, reduced environmental impact, and clarification of regulatory issues.

♦ ***EPA's National Environmental Performance Track Program & VEEP***

On June 26, the U.S. Environmental Protection Agency (EPA) announced the National Environmental Performance Track program. The Performance Track builds on EPA's Common Sense Initiative, Environmental Leadership Program, Star Track, Partnership Programs, and many state performance programs. The program recognizes performance at two levels: Environmental Achievement and Environmental Stewardship. The Environmental Achievement level is similar to the Exemplary Environmental Enterprise or E3 level of the VEEP in that it requires participating facilities to have an environmental management system and a commitment to continuous improvement as well as a record of sustained compliance with environmental regulations.



DEQ has been an active participant in discussions between states and EPA regarding the development and implementation of the Performance Track program. Specifically, DEQ has worked with EPA to ensure that the programs are not duplicative or confusing to potential participants. DEQ expects to sign a reciprocity agreement with EPA in late 2000. DEQ also plans to develop a joint application, which will allow facilities to apply for membership in both the Performance Track and E3 programs at the same time.



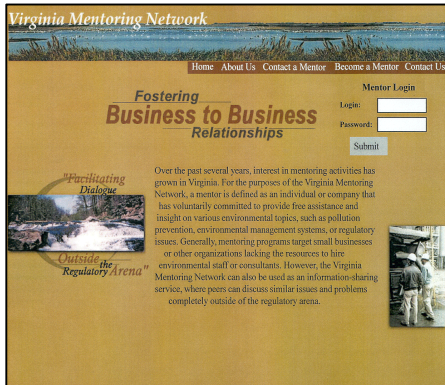
## 2. Mentoring

Over the past several years, interest in mentoring activities has grown in Virginia. Various programs have already developed mentoring services, and trade associations and other organizations are beginning to identify mentoring as a helpful tool for their members. DEQ views mentoring as an invaluable resource that complements its own compliance assistance and outreach activities.



OPP's Tom Griffin describing the VMN at a workshop

During 2000, the Office of Pollution Prevention (OPP) undertook the development the



Virginia Mentoring Network (VMN), which is expected to be operational by January 2001. For the purpose of the VMN, a mentor is defined as *an individual or company that has voluntarily committed to provide free assistance and insight on various environmental topics, such as pollution prevention, environmental management systems, or regulatory issues*. Generally, mentoring programs target small businesses or other organizations lacking the resources to hire environmental staff or consultants. However, the VMN can also be used as an information-sharing service, where peers can discuss similar issues and problems completely outside of the regulatory arena.

The VMN promotes peer-to-peer, business-to-business mentoring activity throughout the Commonwealth as a logical, alternative service that complements the regulatory functions of DEQ and other regulatory agencies. OPP plans to facilitate the matching of qualified mentors with small businesses based on the mentor's experience as well as the business's needs and geographic location. A mentoring workgroup consisting of representatives of assistance organizations, governments and industry was established in 1999, and the VMN is the product of its efforts.

The Network will serve as an umbrella to existing mentoring programs, such as the Chesapeake Bay Program's *Businesses for the Bay* and the recently-created *EnviroMentors* program, which is administered by DEQ's Small Business Assistance Program. In addition, the Network will coordinate with developing mentor programs and encourage other organizations, such as trade associations and business councils, to develop similar programs. The VMN will be web-based, allowing "mentorees" to find the appropriate mentor without ever having to contact DEQ.

The VMN's database is organized and searchable by areas of expertise. Individual mentors complete surveys establishing the types of environmental issues and topics in which they have experience and feel comfortable providing assistance. A person accessing the web site is able to search by a given subject topic. The search will result in a list of mentors with company/organization name, phone number, email, and the mentor program affiliation. The database will also allow searches by name and geographic location.

Because mentoring is strictly a voluntary service, the extent of “mentoring” will be left up to the individual mentor and the mentoree, depending upon their individual needs, abilities, and time commitments. Mentoring can be as simple as answering a few questions on a given topic. Or, depending upon the individuals, the assistance can become much more involved.

The goal of the VMN is to facilitate as many “mentoring events” as possible with the hope that this information sharing will in turn further pollution prevention and environmentally beneficial projects. A “mentoring event” occurs any time that a mentor assists or provides information to another business. Mentoring events do not have to be as a direct result of the VMN. They can occur through normal interactions with vendors, suppliers, community organizations, or other communications. DEQ plans to send a monthly email reminder to all of its mentors to report on their recent mentoring events. In addition, DEQ will periodically ask its mentors to attempt to quantify the results of their assistance efforts. Even without the VMN web site as a tool, the Businesses for the bay mentoring program currently documents several mentoring events a month. DEQ hopes that the VMN will be able to document at least thirty mentoring events per month by then end of 2001.

### 3. Environmental Technology

Under the VIP2 initiative, DEQ established the Office of Innovative Technology within the Division of Pollution Prevention and Compliance Assistance to promote the development and use of new environmentally preferable technologies. The Office is interested in technologies addressing environmental impacts across all environmental media (air, water, and land) and all levels of the environmental management hierarchy (pollution prevention, recycling, control, treatment, and disposal), including such areas as energy efficiency and environmentally preferable materials.

An Innovative Technology Manager was hired in November, 1999 to staff the Office. During 2000, the Office developed its capabilities in the areas of providing information and assistance to environmental technology developers, collaborating with other state and federal agencies as well as private sector stakeholders, and establishing relationships with other states promoting technical exchange and reciprocity.

The following are among the accomplishments of the Office of Innovative Technology during 2000:

- ◆ Establishment of an innovative technology web site containing information and links to help companies access resources for technology demonstration and verification; research, development, and technology transfer; financing and business assistance; export promotion; environmental business directories; and, environmental technology news.
- ◆ Provision of advice, leads, and assistance to on environmental technology issues in response to inquiries from businesses and citizens. This includes providing data, clarifying regulatory questions, sharing perspective on business approaches, and providing leads on financial resources. One Richmond-area firm received an EPA Small Business Innovative Research grant as a result of a DEQ-provided lead.
- ◆ Accession of DEQ to the Environmental Technology Acceptance and Reciprocity Partnership (eTARP), a partnership of states promoting interstate reciprocal acceptance of environmental technologies through the development of common demonstration projects. In June 2000, DEQ accepted an invitation to join eTARP, whose other members are California, Illinois, Massachusetts, New Jersey, New York, and Pennsylvania. A number of other states are also interested in joining. The partnership has established a strategy for technology verification and acceptance that emphasizes shared technology demonstration protocols. Shared protocols will not replace each state's permitting and approval processes; however, they can reduce the amount of duplicative testing that a technology vendor might otherwise have to perform to convince regulators and customers in multiple states of the technology's credibility. Shared protocols covering elements common to the permitting and approval processes of the eTARP states can also streamline the time required to review applications proposing the use of innovative technologies. The eTARP group has created a generic technology demonstration protocol to guide technology developers and vendors to provide consistent and credible technology performance data across the states. Workgroups are now developing protocols for



Photovoltaic cells generate power at the Pentagon (courtesy USDOE, National Renewable Energy Laboratory)



specific classes of technologies, including stormwater management, beneficial use determination for recovered materials, and septic treatment. Proposed future work includes development of guidance for demonstration of pollution prevention and greenhouse gas reduction technologies.

- ◆ Designation as the Virginia point of contact for the Interstate Technology and Regulatory Cooperation Workgroup (ITRC), an organization of 39 states and the District of Columbia working in cooperation with tribal governments, federal agencies, and the private sector to provide technical exchange and training in environmental technologies, primarily for contaminated site characterization, monitoring, and remediation.
- ◆ Participation on the Chesapeake Bay Program's Technology Task Force.
- ◆ Oversight of a U.S. Department of Energy funded Reynolds Metals Company project for developing emissions monitors to assist in reducing chlorine use in aluminum production.
- ◆ Oversight of a Center for Advanced Ship Repair and Maintenance project to treat tributyltin contaminated wastewater.
- ◆ Participation with the Virginia Environmental Business Council in events and initiatives supporting the Commonwealth's environmental goods and services industry.
- ◆ Technical support to other DEQ offices, such as work with the Office of Pollution Prevention in assisting Atlantic Rural Exposition, operator of the Virginia State Fair, in its collaboration with the U.S. Department of Energy to incorporate environmentally favorable options for the future State FairPark.
- ◆ Establishment of an Environmental Technology Advisory Group, consisting of representatives from organizations such as universities, environmental business, industry, and citizen groups, to advise the DEQ Director on environmental technology issues.

#### **4. Financial Incentives for Environmental Improvements**

Under VIP2, DEQ has worked to identify new and existing financial resources for environmental improvements. During 2000, significant progress was made on three specific resources, the development of the *Financial Incentives for Environmental Improvements in Virginia* document and the implementation of two revolving loan programs, the Small Business Environmental Compliance Assistance Fund Virginia Agricultural Best Management Practices Loan Program.

##### ***Financial Incentives for Environmental Improvements in Virginia Document***

Beginning in mid-2000, the Office of Pollution Prevention worked to develop a document entitled the *Financial Incentives for Environmental Improvements in Virginia*, which catalogs grants, loans, tax incentives, and other financing options available to assist in the implementation of pollution prevention and other environmental projects. Once finalized, the information will be available in both hard copy and online through DEQ. The document, which has been designed to be user-friendly, was reviewed by a workgroup comprised of industry and state representatives in the fall of 2000. Their suggestions will be incorporated and the document will be made available to the public in early 2001.

##### ***Small Business Environmental Compliance Assistance Fund***

Under the Small Business Environmental Compliance Assistance Fund (SBECAF), which became operational in mid-2000, Virginia small businesses can obtain direct loans of up to \$50,000 to finance the purchase of equipment to implement voluntary pollution prevention, equipment to comply with the federal Clean Air Act, or equipment or structures to implement agricultural best management practices. The loans are offered at a 3% interest rate with favorable repayment terms based on the borrower's ability to repay and the useful life of the project being implemented.

To be eligible for financing through the SBECAF, a business must meet the following criteria:

- ◆ Be a qualified small business (employing 100 or fewer people or be a small business as defined in the federal Small Business Act);
- ◆ Maintain business operations in Virginia; and,
- ◆ Demonstrate a reasonable assurance of repayment.

Some examples of eligible loan uses under the pollution prevention category of the SBECAF include high-volume low-pressure spray guns, alternative curing technologies, and ultrasonic cleaning equipment to replace solvent systems.

By the end of October, \$164,704 in loans had been awarded to four companies for pollution prevention projects. On September 12, the first loan was presented to Town



Sec. Woodley, presenting the first SBECAF loan, is joined by Del. Thomas Bolvin, DEQ Director Dennis Treacy, Town Cleaners owners Mr. and Mrs. Hyo Min Ahn, Dept. of Business Assistance Dir. David Dickson, and Sen. Linda "Toddy" Puller.

Cleaners in a ceremony attended by Secretary of Natural Resources John Paul Woodley, Jr. The Lorton dry cleaning business obtained a \$50,000 loan to purchase equipment that significantly reduces air emissions.

### ***Virginia Agricultural BMP Loan Program***

Through the Virginia Wastewater Revolving Loan Fund, a new program known as the Virginia AgBMP Loan Program was initiated by DEQ in January 2000. This program provides loans to Virginia's agricultural producers (farmers and growers) throughout Virginia at an interest rate of 3% to assist them in implementing any of the twenty-three agricultural best management practices (BMPs) identified as being eligible under the program. The goal of the program is to help reduce or eliminate non-point source pollution of state waters from agricultural operations.

An initial set-aside of \$5 million from Virginia's Wastewater Revolving Loan Fund repayment proceeds was established for program implementation. The loans can be used in conjunction with other funding programs (i.e., State Cost Share, EQUIP, etc.) or as stand alone financing. Any Virginia producer interested in implementing an eligible BMP is eligible to apply and can do so by submitting a simple two-page pre-application form. A minimum loan amount of \$5,000 has been established, but there is no maximum limitation. Some examples of eligible practices are animal waste control facilities, pumping equipment, fencing to protect grazing lands and streams, and alternative watering systems.

On May 12, Secretary of Natural Resources John Paul Woodley, Jr. and DEQ Director Dennis Treacy presented the first AgBMP loan of \$147,000 to Mr. Lloyd McPherson of Christian Creek Holsteins. As of mid-October, twenty AgBMP loans had been closed, totaling approximately \$1.8 million. Twenty-two additional loans were in process for another \$1.2 million.

## **5. Integration of Pollution Prevention Concepts within DEQ's Core Regulatory Programs**

In late 1999, DEQ received a grant from EPA to undertake a special project to integrate the concepts of pollution prevention into the agency. The purpose of the project is to test the effectiveness and appropriateness of integrating voluntary pollution prevention within the agency's core regulatory functions such as permitting, inspections, enforcement, and regulation and policy development. This will be accomplished by identifying and implementing a series of pilot projects.

Examples of pollution prevention integration projects developed in other states using this process have included:

- ◆ Integrating pollution prevention in the inspections of metal finishing facilities;
- ◆ Establishing a pollution prevention coatings partnership and training program for industry, government, suppliers and coatings applicators;
- ◆ Integrating pollution prevention into the enforcement process; and,
- ◆ Creating a coordinated effort to integrate pollution prevention into pre-permit meetings, the permit renewal process and permit writer facility visits.

### **P2 EVERYDAY AT DEQ**

In addition to the eleven pilot projects, examples of pollution prevention integration within DEQ's regulatory programs can be found in almost every agency program. For instance, in the fall of 2000, a permit writer in DEQ's Tidewater Regional Office worked with Norfolk State University. The university voluntarily agreed to accept requirements for a cleaner burning fuel into their air permit, an action that will result in a reduction of 28.6 tons of sulfur dioxide emissions annually.

The following eleven pilot projects were identified through interviews with DEQ staff and selected for implementation:

- ◆ **Hazardous Waste Inspections:** Develop an inspection strategy to perform pollution prevention biased compliance assistance inspections in select target industry sectors. Develop and provide inspection "tools". Enhance cooperation between hazardous waste compliance and Office of Pollution Prevention (OPP) staff.
- ◆ **Water Permitting:** Facilitate integration of pollution prevention into the Virginia Pollutant Discharge Elimination System (VPDES) permit process with the overall goal of reducing overall discharges of wastewater and reducing pollutant concentrations in wastewater. This will be accomplished through the evaluation of pollution prevention opportunities by OPP staff and water permits writers and inclusion of pollution prevention special conditions in VPDES permits.
- ◆ **Air Permitting:** Develop a pilot project in the Valley Regional Office which (1) identifies and tracks pollution prevention conditions in current air permits and (2) seeks opportunities to develop additional permit condition language to further integrate pollution prevention into air permits. This will be accomplished through negotiation with selected permit applicants, emphasizing incentives for pollution prevention with the overall objective being to reduce emissions of any pollutant.

- ◆ **Multimedia Inspections:** Design and implement a pilot project(s) to conduct multimedia and pollution prevention inspections at selected facilities to evaluate the potential for integration of multimedia and pollution prevention strategies into existing DEQ inspection programs.
- ◆ **Brownfields/Remediation:**
  - **Brownfields:** Reduce the mass of contaminants transferred to the environment from soil and groundwater remediation systems.
  - **Remediation:** Reduce pollution potential at the front end of a redevelopment project by implementing pollution prevention techniques, strategies, and technologies at the engineering stage of the project.
- ◆ **Printing VOC Initiative:** Encourage several printing facilities to voluntarily install additional process equipment that would improve the efficiency of existing pollution control equipment resulting in a reduction of overall Volatile Organic Compound emissions, while providing the facilities with reduced energy consumption and potential increased solvent recovery.
- ◆ **Enforcement:** Promote the use of pollution prevention projects as supplemental environmental projects in enforcement cases.
- ◆ **Construction Grants Initiative:** Integrate pollution prevention into two loan programs offered by DEQ, the Virginia Wastewater Revolving Loan Fund and the Virginia Agricultural BMP Loan Program.
- ◆ **Cetane:** Encourage greater use of diesel fuel with a cetane rating of at least 50. Higher cetane ratings result in cleaner burning fuel and reduced or fewer emissions, especially nitrogen oxides.
- ◆ **Confined Animal Feeding Operations (CAFO) Waste Reuse Initiative:** Promote the use of CAFO waste for Virginia Department of Transportation highway construction revegetation and roadside maintenance. The program has the potential to reduce runoff pollution and other problems associated with land application of CAFO waste, provide a new market for beneficial use of CAFO waste, and lower roadside beautification costs for the Commonwealth.
- ◆ **Staff Recognition:** Develop pollution prevention employee awards program and incorporate a pollution prevention element in employees' position descriptions.



OPP's John Handzo (right) participates in a visit to a printing facility as part of the Printing VOC Initiative

A committee consisting of representatives of senior management has been established to provide project oversight and direction. In addition, a meeting of external stakeholders held in September provided valuable feedback on the project to DEQ. All of the projects are expected to be completed by mid-2001, and additional pilot projects are anticipated to be initiated.



## 6. Expanded Technical Assistance & Outreach Services

Under the VIP2 initiative, DEQ has committed to significantly increasing the level of technical assistance it provides to facilities on pollution prevention and environmental management systems. The Office of Pollution Prevention (OPP) provides two basic types of assistance: on-site pollution prevention assessments, in which OPP staff visit facilities, review their processes and make pollution prevention recommendations, and targeted outreach for particular industry sectors, geographic areas or pollutants. Each of these categories of technical assistance is discussed below.

### On-Site Assessments

During 2000, OPP visited 102 facilities to provide on-site pollution prevention and environmental management systems technical assistance. For the first time, OPP has staff physically located in DEQ regional offices, closer to the facilities that they assist. Forty site visits were made in cooperation with DEQ's compliance inspectors. The purpose of these joint visits is to show the inspectors methods of finding pollution prevention opportunities at a facility.

OPP provides technical assistance to a variety of facility types, including state government facilities, printers, marinas, and chemical manufacturers. In 2000, the metal finishing industry was the highest priority for OPP technical assistance due to their production of waste streams containing PBT (persistent, bio-



OPP's Bill Sarnecky (right) visiting a facility (Fall, 2000)

#### Highlights of Pollution Prevention Successes in Virginia Documented by OPP (1998-2000)

- ◆ Over \$11,000,000 saved by businesses through pollution prevention activities
- ◆ Over 320 million pounds of solid waste avoided
- ◆ Over 200 million gallons of wastewater avoided
- ◆ Over 1.5 million pounds VOCs avoided
- ◆ Over 2.25 million pounds of hazardous wastes avoided

accumulative and toxic) chemicals (see Strategic Goals Program for Metal Finishers below on page 16). OPP has contacted all 120 metal finishers in Virginia to schedule site visits and conducted assessments at twelve facilities to date. In addition, OPP has also targeted the furniture industry, working with ten furniture manufacturers on pollution prevention and compliance assistance projects.

Two new databases were created to help quantify the amounts of pollutants being reduced at facilities that have been visited by OPP staff in recent years. The first one, which was developed using Microsoft Access software, records waste reductions during the period 1998 through 2000 at facilities with which OPP has had some sort of interaction. To date, over eleven million dollars in savings have been documented. Environmental improvements reported from these facilities include:

- ◆ 33% of the reported pollution prevention successes involved reductions in solid waste (over 320 million pounds of waste was not sent to landfills);
- ◆ 25% of the projects involved reductions in wastewater (more than 200 million gallons);

- ◆ 20% of the projects involved reductions in air emissions (over 1.5 million pounds per year of Volatile Organic Compounds and Hazardous Air Pollutants were prevented from entering the atmosphere); and,
- ◆ 15% of the projects involved hazardous wastes (over 2.25 million pounds of hazardous wastes were not generated as a result of source reduction activities).

Because the program is voluntary, any information captured in this database is anecdotal; however, given that only a small number of facilities are represented in the database, its results are significant.

Also, the recently developed central DEQ database CEDS (Comprehensive Environmental Data System), which records all regulatory activities and the resulting data for all environmental media, was expanded in 2000 to include a pollution prevention module. This new module will track OPP outreach activities such as pollution prevention suggestions made during site visits, implementation status, and follow-up data on the amounts of pollutants reduced/dollars saved.

## ***Targeted Outreach Initiatives***

OPP has a number of initiatives underway designed to increase the level of pollution prevention activity within a particular business or industry sector, geographic area of the state or particular waste stream. Although the specific activities vary from initiative to initiative, generally OPP provides information in the form of workshops, fact sheets, case studies, and specific guidance for each initiative. A number of OPP's outreach efforts are summarized below.

### ◆ ***Virginia/DOD Pollution Prevention Partnership***

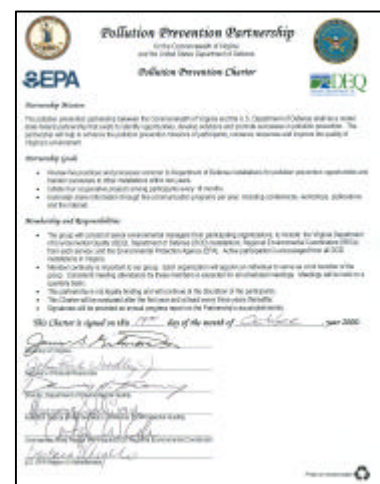
On October 19, officials from the Commonwealth of Virginia, the Environmental Protection Agency, and Department of Defense signed the "Virginia-DOD P2 Partnership Charter" at a ceremony in the House of Delegates Chambers at the Virginia State Capitol. The agreement promotes the use of pollution prevention techniques at military facilities and will be implemented by a group consisting of environmental managers from DEQ, defense installations, and EPA.

The implementation team will meet on a regular basis to meet the following goals:

- ◆ Review five pollution prevention practices common to defense installations for possibly transferal to the private sector within two years, including:
  - Decrease or eliminate solvent use;
  - Decrease or eliminate universal waste;
  - Affirm pollution prevention procurement;



Virginia/DOD P2 Partnership  
Signing ceremony on October 19  
in the House Chamber of the  
Virginia State Capitol

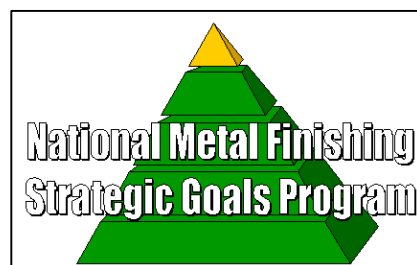


Virginia-DOD Pollution  
Prevention Partnership Charter

- Manage hazardous materials; and,
- Identify alternatives to aqueous film forming foam (AFFF) used in fire fighting.
- ◆ Initiate at least four cooperative projects among the participants every 18 months, including:
  - Participate in the Virginia Naturally 2000 program;
  - Educate design engineers on sustainable building techniques, technologies, and processes;
  - Reduce discharge of priority chemicals to Virginia's environment; and,
  - Increase number of facilities participating in Businesses for the Bay.

◆ **Virginia Strategic Goals Program for Metal finishers**

On December 16, 1999, DEQ signed on to EPA's Strategic Goals Program for Metal Finishers in a ceremony at DEQ's Central Office. During 2000, OPP worked with other stakeholders, including industry, municipal wastewater authorities, and EPA to develop the "Virginia Strategic Goals Program Framework". In less than five months, a committee comprised of representatives from the metal finishing industry, municipal wastewater plants, DEQ regulatory programs, EPA Region III, EPA Headquarters, and OPP developed and initiated the Virginia program.



Under the program, there are seven core environmental goals to be achieved by metal finishers:

- ◆ 98% metals utilized on products;
- ◆ 50% water reduction;
- ◆ 25% energy reduction;
- ◆ 90% reduction in organic Toxic Release Inventory emissions;
- ◆ 50% reduction in metals emissions to air and water;
- ◆ 50% reduction in land disposal of hazardous sludge and a reduction in sludge generation; and,
- ◆ Reduction in human exposure to toxic materials in the facility and the surrounding community.



DEQ Director Dennis Treacy  
at SGP signing ceremony  
(December 1999)

Metal finishers are induced towards continuous improvement with benefits designed to provide regulatory relief and economic savings. Benefits to the local wastewater plants include the ability to reallocate their resources to areas of greater environmental concern and an improved relationship with the metal finishing sector and DEQ. Both parties receive technical assistance, public recognition, and the benefits of a collaborative relationship that will influence the development of future regulations.



OPP's Keith Boisvert (right) presents  
Richmond Metal Finishing representatives  
with their SGP participation certificate

Approximately 120 metal finishing facilities have been identified in the Commonwealth. These

facilities are associated with approximately 34 local wastewater plants. The program was officially launched in September, when two orientation workshops were conducted for prospective participants. To date, nineteen metal finishers and eight local wastewater plants have signed up for the program. OPP is working with the remaining facilities and wastewater authorities to encourage them to join the program.

In the fall of 2000, OPP visited participants to present them with their membership certificates and discuss the program in detail. Facilities have indicated that they are very interested in receiving technical assistance from OPP. One participating metal finisher that has already projected savings in welding gas of 50% over last year. Another very small facility is considering moving to a zero discharge of wastewater. A third facility is in the process of eliminating lead from their powder coating operation.

#### ◆ ***Healthcare***

In 1999, many of Virginia's landfills experienced problems related to the disposal of medical wastes. These problems resulted in the issuance of DEQ citations and extensive negative press for the landfills in question as well as the healthcare facilities involved. In part due to the timeliness of this issue, EPA Region III made the healthcare industry the topic of its Winter 2000 Pollution Prevention Conference held in Richmond on January 20-21.



Since the conference, OPP has maintained contact with many of the attendees and has gradually developed a follow up strategy to address the many pollution prevention opportunities in the healthcare industry. OPP expects that healthcare providers in Virginia will embrace the pollution prevention goals set by EPA and the American Healthcare Association (AHA) in a Memorandum of Understanding in 1998. DEQ's strategy for 2001 includes partnering with Washington, D.C. to reach healthcare providers, organizing a facilitated roundtable meeting for Virginia healthcare corporations to discuss the EPA/AHA MOU, developing a mercury thermometer exchange program, and conducting pilot pollution prevention assessments at several hospitals. OPP plans to work with the Virginia Healthcare Association to make the initiative a permanent component of the organization.

#### ◆ ***Computer/Electronics Recycling***

In response to a number of inquiries, in 2000 OPP initiated an effort to identify landfiling alternatives for computers and other electronic devices. By some estimates, about three-quarters of all computers ever bought in the U.S. are currently stored in warehouses, attics, basements, and office closets as a result of a lack of information on proper disposal or recycling. To address the issue, OPP has created a database of current electronic recyclers within Virginia and the surrounding states. In addition, OPP is researching international trends in product stewardship, electronics toxicity in landfills, refurbishment of electronics, and programs in other states created to deal with the increase in electronics in the waste stream. The findings will be compiled into a report in 2001. OPP staff have incorporated electronics into DEQ's WasteWi\$e goals (see below) and is working in cooperation with the Virginia Department of General Services to assist other state agencies to recover and recycle electronics.



### ◆ ***Shipbuilding Sector Initiative***

OPP became a participant in EPA's Sustainable Industry Program sector project for the Shipbuilding and Repair Industry in 2000. The Sustainable Industry Program works in partnership with industry and state governments to find the most effective and innovative ways to improve environmental performance. The project analyzes, evaluates, and tests incentives and tools that can promote "beyond compliance" actions by businesses acting in their own interest.



The initial phase of the project involved visits to shipyards around the country and interviews with shipyard personnel responsible for or affected by environmental regulation. The findings of the analytical phase were presented and discussed at a stakeholder meeting in April. The meeting was attended by representatives of industry and trade associations, coatings manufacturers, shipbuilding and repair "customers," EPA and state environmental agencies, including DEQ. Demographic, economic, and regulatory traits and trends as they relate to the shipbuilding and repair industry were discussed, as were demographic, economic, and regulatory drivers and barriers affecting environmental performance.

A plan to develop and implement pilot projects designed to remove the barriers to exemplary environmental performance within the shipbuilding and repair industry is currently being prepared. Once complete, Virginia will assist with the implementation of the plan in cooperation with EPA Region III.

### ◆ ***EPA's WasteWi\$e Program***

In the spring of 2000, DEQ joined EPA's WasteWi\$e program, committing to lead by example and expand the agency's solid waste reduction activities. WasteWi\$e is a voluntary partnership program that assists and challenges organizations to find savings through innovative waste reduction activities. There are currently over 1,000 members. WasteWi\$e offers planning, measurement and educational tools, and assistance to aid partners in creating and reaching solid waste reduction goals with an annual reporting requirement.



OPP is focusing on the Central Office's activities for its first year reduction goals; the regional offices will gradually be incorporated into the program. DEQ's goals focus on office waste paper, waste electronics, and promotion of the WasteWi\$e Program to local governments and businesses within Virginia. OPP plans to examine agency procurement practices and recycling efforts over the next three years as part of its WasteWi\$e program.



## ♦ **State Agency & Local Government Initiative**

During 2000, OPP worked on a number of projects related to pollution prevention in state and local government agencies, including:

- **Environmentally Preferable Purchasing for Virginia Governments:** OPP is working with the Department of General Services (DGS) to promote environmentally preferable purchasing (EPP) among Virginia state and local governments. Several other states already have active EPP programs. At the federal level, EPP has been incorporated into Executive Order (EO) 13101 and Federal Acquisition Regulation (FAR), and is now a major initiative within EPA. According to the EO and FAR, all federal procurement officials are required to assess and give preference to those products and services that are considering environmentally preferable.

OPP and DGS are also working to identify those products currently on contract with the Commonwealth that contain environmentally-preferable attributes such as recycled content, low toxicity, durability, or other beneficial characteristics. OPP and DGS plan to partner in 2001 to provide EPP workshops that will provide training to procurement officials and other interested parties. Additionally, OPP and DGS are developing web sites with information on green procurement, such as events, practices, vendors, and additional resources. OPP is developing a list of local government procurement and pollution prevention contacts to form a network, which will foster information sharing amongst the participants. Membership within the network will be established through mailings and email communication; and a list-serve is planned.

- **P2 News:** As part of its general pollution prevention outreach to state agencies, an electronic newsletter, *P2 News*, is sent out on a monthly basis to all participating state agencies and local government pollution prevention contacts. The newsletter informs readers about relevant environmental issues, waste minimization techniques, and updates regarding upcoming pollution prevention activities and events.
- **Department of General Services & VEEP Participation:** OPP has discussed the possibility of DGS applying for participation in the Virginia Environmental Excellence Program (VEEP) for the Capitol Complex in Richmond. In addition, DGS' Division of Laboratory Services is building a new facility due to be opened in 2003. OPP has discussed opportunities for pollution prevention and an environmental management system for the new facility with DGS. DLS has committed to involving OPP in its design team and to incorporate sustainable building design where feasible.
- **Green Campus Initiative:** OPP staff assisted John Tyler Community College and Thomas Dale High School, both located in Chester, in their partnership to develop green campus programs, which would include a facility pollution prevention plan, an environmental technology curricula, integration of pollution prevention concepts in other applicable curricula, development and adoption of green campus/pollution prevention management policy statement, and a green

purchasing/environmentally-preferable products program. Once underway, OPP plans to document the project as a pilot to be shared with other state colleges and universities.

Specific OPP outreach to local governments conducted during 2000 include:

- A pollution prevention assessment meeting with community development representatives for Gloucester County, as well as a presentation to the Gloucester Business Association. Opportunities to implement pollution prevention practices were discussed, particularly those related to vehicle fleet maintenance, purchasing, solid waste reduction, and marina management.
- Efforts with the City of Bedford to develop an outreach program to better educate the general public, as well as the business community, about environmental problems and common-sense ways to protect the environment. Ideas being considered for inclusion in an overall Outreach Work Plan for the city include developing educational brochures, organizing a waste collection and recycling program, facilitating workshops, and providing pollution prevention and pretreatment assistance. Additionally, a pollution prevention plan with pilot projects related to the Virginia Environmental Excellence Program is being considered.

#### ♦ ***EnvironmentalLodging***

Virginia EnvironmentalLodging is a public recognition and awareness initiative for the hospitality industry created during 2000. EnvironmentalLodging, which was started with the support of the Virginia Recycling Association, seeks partnerships with the hospitality industry to promote pollution prevention strategies, including decreasing waste generation, using less toxic materials, and conserving water, energy, and natural resources.



OPP has developed a tool kit for the program consisting of a series of fact sheets, success stories, a pollution prevention checklist, and a room placard. These materials were made available at three conferences and were presented to several industry groups affiliated with the Virginia Hospitality & Tourism Association (VHTA). OPP attended VHTA's Quarterly Meeting, September 19 and 20 at Wintergreen Resort to promote the program. At the event, OPP displayed its new EnvironmentalLodging exhibit and materials. EPA Region III's annual pollution prevention conference planned for January, 2001 in Philadelphia will feature the hospitality industry; OPP plans to invite several industry members to attend and/or speak. A Virginia workshop/conference is planned for 2001.

#### ♦ ***Tangier Island***

For over twenty years, Tangier Island has received extensive technical and financial support from DEQ to assist with maintenance and improvements to the Town's waste treatment and disposal facilities. Despite all efforts to maintain these facilities, the

structures and their performance deteriorated. A team of DEQ personnel experienced with Tangier's waste issues (including OPP staff) was assembled in the spring of 2000 to assess the waste management facilities, Town budget, and potential pollution prevention waste reduction options. Their findings and recommendations were compiled into a report submitted to the Director's office for consideration.

The pollution prevention section of the *Tangier Waste Management Assessment* focused on low maintenance solid waste reduction options that could reduce disposal costs, compliance requirements, and transportation issues. Suggested alternatives to the current practice of incinerating solid waste are composting, compacting, and recycling. Up to 58% of Tangier's solid waste could be diverted from incineration by implementing a recycling and organics composting program. Also, if a used boat fluids collection program was implemented, up to 2,000 quarts of oil, antifreeze, and gasoline could be reclaimed. The study also concluded that creating a used car battery collection program would divert approximately 200 car batteries used in golf carts from entering the Town's waste stream.

#### ◆ ***Businesses for the Bay***

There are 177 Virginia businesses participating in the Businesses for the Bay Program, a voluntary pollution prevention program designed to encourage industry, business, and other organizations to adopt pollution prevention principles. There are also over 70 members who have volunteered to serve as business-to-business mentors for pollution prevention. Sponsored by EPA's Chesapeake Bay Program, Businesses for the Bay (B4B) was designed in conjunction with the Chesapeake Bay Basinwide Toxics Reduction and Prevention Strategy. The program has received national recognition for its environmental education and mentoring programs. B4B recognizes pollution prevention as an important tool for improving conditions in the Bay and is designed to reduce the impacts of toxics on the watershed.



Each participating facility develops its own pollution prevention goals. Each year participants are asked to report on their successes and to establish their goals for the next year. Businesses for the Bay member facilities receive positive public recognition, access to mentoring, and eligibility for annual awards presented by the Chesapeake Bay Program Executive Council.

This year B4B established new long-term goals:

- ◆ By 2005, Businesses for the Bay will have 1,000 participants throughout the watershed;
- ◆ By 2005, Businesses for the Bay will have 300 mentors performing a total of 500 mentoring events per year; and,
- ◆ By 2005, Businesses for the Bay participants will prevent a cumulative total of 1 billion pounds of hazardous substances from entering the waste stream.

OPP has been promoting these goals through a variety of approaches, including mailings to members, newsletter features, newspaper articles and advertisements, one-

on-one recruitment meetings, displays at conferences, and other presentations. Some highlights include:

- ◆ Business for the Bay member facilities were featured in the Richmond Times-Dispatch advertorial section for Virginia's "Fall River Renaissance" on September 14;
- ◆ On September 30, Businesses for the Bay cosponsored a 5K run for environmental education at James River Park in Richmond;
- ◆ Every month two participating facilities are visited by an OPP representative, affording the opportunity to observe implemented waste reduction;
- ◆ The Businesses for the Bay Annual Awards Conference was held in Irvington, Virginia this year on October 26 and 27. Secretary of Natural Resources John Paul Woodley, Jr., and DEQ Director Dennis H. Treacy presented the awards, which were given in categories based on business size (large, medium, small) and type of government facility (federal, state, municipal). For the year 2000, Virginia winners included the U.S. Coast Guard in Portsmouth (Outstanding Achievement Award for a Federal Facility), the City of Newport News (Outstanding Achievement Award for Municipal Government), and Canon Virginia Inc. in Newport News (Significant Achievement Award for Large Business). Also, Tedd Jett of Merck & Company in Elkton, was recognized as the Businesses for the Bay 2000 Mentor of the Year.



Tedd Jett of Merck & Company is presented with "Mentor of the Year 2000" award by Secretary Woodley

Virginia Businesses for the Bay participants reported total waste reductions (through pollution prevention and recycling) of almost 300 million pounds at a total cost savings of 1.4 million dollars in 2000.

#### ◆ ***Mercury Reduction Initiative***

OPP is working to promote and coordinate statewide efforts to reduce the use of mercury and mercury-containing products and to collect unused elemental mercury for proper management and recycling. In early 2000, the Virginia Department of Health (VDH) and Virginia Dental Association conducted a mercury collection program for dental offices. In one month, more than four hundred pounds of mercury was collected. In 2001, OPP plans to partner with the VDH, the Virginia Mentoring Network, and local governments to conduct a similar mercury collection aimed at high school laboratories and state colleges and universities. Other projects planned for 2001 include a thermometer exchange program in partnership with the healthcare industry and a reduction initiative with the Department of Defense.

#### ◆ ***Information Clearinghouse and Requests***

OPP's information clearinghouse consists of fact sheets, success stories, industry specific literature, general pollution prevention information, EPA publications, posters, and instructional videos. Much of this information is in electronic format and can be downloaded directly from the program's web site ([www.deq.state.va.us/p2](http://www.deq.state.va.us/p2)). The

publication clearinghouse is not static. It changes to accommodate the increasing and varied demands for pollution prevention information.

Approximately thirty-five requests for clearinghouse information are received per month. These requests come via phone, mail, fax and electronic mail. Many of the requests are for general pollution prevention information but some require staff time to research specific issues. The majority of requests, about 95%, come from within the Commonwealth. The rest are from national or international locations. The implementation of a more streamlined database in 2001 is expected to facilitate more complete tracking of the number and nature of pollution prevention information requests.

## ***Coordination with Other Pollution Prevention Programs***

The Office of Pollution Prevention works closely with pollution prevention organizations, including regional, national, and international.

### **◆ *Waste Reduction Resource Center***

The Waste Reduction Resource Center (WRRC) provides technical pollution prevention support to the states in EPA Regions III and IV. The Center maintains a searchable index of over 18,000 technical articles, fact sheets, and case studies about waste reduction technologies, many of which are available electronically. Information targeted to specific industries is included separately for easy access.



In 2000, the WRRC created “Expert Workgroups”, which are a series of teams comprised of representatives of participating state pollution prevention programs for specific source categories (e.g., marinas, restaurants, hospitals, etc.). WRRC has established list-serves for each of the workgroups to share expertise, new information and ideas. The workgroups’ main function is to help update the database by referring new, cutting edge resources for addition to the database. In addition, one of the goals of the workgroups is to improve communication among the various WRRC state participants, address common problems, and work together on regional pilot projects.

### **◆ *National Pollution Prevention Roundtable***

DEQ has been a participant in the National Pollution Prevention Roundtable (NPPR), for at least ten years. NPPR is the largest membership organization in the U.S. devoted solely to pollution prevention. The mission of the NPPR is to provide a national forum for promoting the development, implementation, and evaluation of efforts to avoid, eliminate, or reduce pollution at the source.



One of the most important roles of NPPR is to provide members with timely and accurate information on pollution prevention. It does this by providing forums for the direct exchange of ideas and expertise as well as through a number of programs



designed for dissemination of the most current data on pollution prevention policy developments, practices and resources. One of the ways NPPR does this is by holding national meetings that facilitate pollution prevention network building and the exchange of ideas, resources and research on various topics. NPPR maintains four topic specific electronic listservers, which function as forums for sharing pollution prevention information. In the fall of 2000, Sharon Baxter of OPP joined NPPR's Board of Directors, representing EPA Region III for a three-year term.

◆ ***International Pollution prevention Summit***

On October 18 through 20, DEQ participated in the first International Pollution Prevention Summit in Montreal. Over 250 representatives of government, business, pollution prevention roundtables, cleaner production networks, community and non-governmental organizations from over 100 countries attended. The goal of the summit was to strengthen partnerships and expand current efforts at pollution prevention. David A. Johnson, DEQ Chief Deputy, addressed the conference plenary. Mr. Johnson, representing Virginia, signed the "International Declaration on Cleaner Production", which encourages the adoption of sustainable production and consumption practices, earlier in the year at the National Pollution Prevention Roundtable's spring conference in Boston.

## **7. Environmental Education**

Since January, the Virginia Naturally 2000 Environmental Education Initiative has signed up over 160 partners and has added over 600 interested citizens to help in the effort to link Virginians to the environment. Virginia Naturally has three primary goals: to provide a gateway to statewide environmental education resources; to recognize exemplary efforts and facilitate community access to resources and environmental education programs; and, to link public and private groups together to reach more citizens from all sectors of the Commonwealth to promote a better understanding of scientific and economic challenges.



A preliminary web site, which was a coordinated effort between all the natural resource agencies, has been established at [www.vanaturally.com](http://www.vanaturally.com). It is designed to be the gateway to environmental and pollution prevention information in Virginia.

Other pollution prevention oriented environmental education activities in 2000 included:

- ◆ In September, 383 sixth graders from Elkton and Hillyard Middle Schools in Rockingham County attended an all-day festival designed to educate students about ground water concepts and pollution prevention efforts and assist teachers with implementation of the related Standards of Learning.
- ◆ Thirty-two schools across the Commonwealth were recognized by Secretary of Natural Resources John Paul Woodley, Jr., for their efforts in environmental education in September.
- ◆ The Office of Pollution Prevention (OPP) provided instruction to 32 high school students at the first annual Governor's Academy for Environmental Stewardship at Natural Tunnel State Park during the summer.
- ◆ Several publications were reprinted and distributed, including 1,000 "Pollution Solutions", a litter prevention and recycling activity guides for teachers K-12 and 10,000 "25 Ways to Help Virginia's Environment" brochures.
- ◆ DEQ will present the Governor's Forum on Environmental Education at Virginia Commonwealth University on December 7 and 8. The forum will give the public an opportunity to have a voice in the future of environmental education.



### **Pollution Prevention Week 2000**

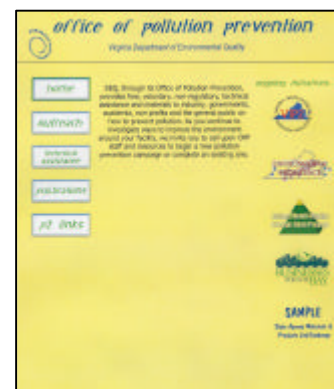
This year, National Pollution Prevention Week was observed during the week of September 18 through 24. Activities presented by OPP included the following:

- Daily emails were sent to DEQ staff, other state agencies, businesses and other organizations on common sense pollution prevention solutions;

- “P2 Everyday Activity”, an activity which encourages participants to document their personal pollution prevention activities throughout the week was produced and distributed;
- Visits to three classrooms (two elementary school and one middle school) to introduce students to the concept of pollution prevention (these visits will continue throughout the school year); and,
- Development of an interactive pollution prevention display designed for school age children, which was displayed at the 2000 Virginia State Fair.

## P2 WEB SITE

In late 2000, OPP staff completely revised the design and content of the program's web site. The site contains detailed information on many of the program's initiatives as well as informational resources and links to other pollution prevention sites. The site, which is accessible at [www.deq.state.va.us/p2](http://www.deq.state.va.us/p2), has become the primary means for OPP to provide current information on its programs and services.



## NEWSLETTER

*Pollution Prevention Virginia*, the OPP program newsletter, has been published by the program for almost eight years. It reaches over 5,500 individuals, government organizations, private businesses, and other organizations. Two issues of the newsletter were produced and mailed this year. The newsletter features information such as descriptions of innovative environmental technologies, updates on various OPP initiatives programs, and pollution prevention success stories from Virginia facilities.

In mid-2000, OPP sent out a postcard to the newsletter's readers offering the document in electronic form. OPP is interested in moving towards electronic communications in order to reduce delivery time, save publishing costs and prevent pollution resulting from printing of the document. Over 300 subscribers indicated interest in receiving the newsletter by email. OPP will continue to promote the electronic newsletter in 2001, with the goal of reducing its publishing by 50%.



**Virginia Pollution Prevention Advisory Committee**

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Sandra Bowen, Virginia Chamber of Commerce  
Annette Christian, Virginia Power  
Jeff Corbin, Chesapeake Bay Foundation  
Matt Cox, HRSD  
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Harry DeLong, Lockheed Martin  
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Ernest Hartman, Canon Virginia  
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**Virginia Environmental Excellence Program:** [www.deq.state.va.us/veep](http://www.deq.state.va.us/veep)

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